Assignment 10.3 Step 2 of Final Project

Basak Atanu

05-19-2022

Data Preparation for Exploratory Data Analysis

```
setwd("C:\\Users\\atanu\\Documents\\BellevueUniversity_MSDS\\DSC520\\Loan Defaulter Data")
default_fin <- read.csv("Default_Fin.csv")
head(default_fin)</pre>
```

```
##
     Index Employed Bank. Balance Annual. Salary Defaulted.
## 1
                   1
                           8754.36
                                        532339.56
## 2
         2
                   0
                           9806.16
                                                             0
                                        145273.56
## 3
         3
                   1
                          12882.60
                                        381205.68
         4
                                                             0
## 4
                   1
                           6351.00
                                        428453.88
                                                             0
## 5
         5
                   1
                           9427.92
                                        461562.00
## 6
         6
                   0
                          11035.08
                                         89898.72
                                                             0
```

This data is related to defaulters, this gives individual's information like if the applicant is employed or not, their bank balance annual salary and if the application defaulted.

```
setwd("C:\\Users\\atanu\\Documents\\BellevueUniversity_MSDS\\DSC520\\Loan Defaulter Data")
loan_data <- read.csv("loan_data.csv")
summary(loan_data)</pre>
```

```
##
    credit.policy
                      purpose
                                                           installment
                                            int.rate
           :0.000
                    Length:9578
                                                :0.0600
    Min.
                                        Min.
                                                          Min.
                                                                  : 15.67
##
   1st Qu.:1.000
                    Class : character
                                        1st Qu.:0.1039
                                                          1st Qu.:163.77
   Median :1.000
                    Mode :character
                                        Median :0.1221
                                                          Median :268.95
##
   Mean
           :0.805
                                        Mean
                                                :0.1226
                                                          Mean
                                                                  :319.09
##
    3rd Qu.:1.000
                                        3rd Qu.:0.1407
                                                          3rd Qu.:432.76
           :1.000
                                        Max.
                                                :0.2164
##
  Max.
                                                          Max.
                                                                  :940.14
   log.annual.inc
                           dti
                                            fico
                                                        days.with.cr.line
##
  Min.
           : 7.548
                     Min.
                             : 0.000
                                       Min.
                                               :612.0
                                                        Min.
                                                                  179
##
   1st Qu.:10.558
                     1st Qu.: 7.213
                                       1st Qu.:682.0
                                                        1st Qu.: 2820
## Median :10.929
                     Median :12.665
                                       Median :707.0
                                                        Median: 4140
           :10.932
##
  Mean
                     Mean
                             :12.607
                                       Mean
                                               :710.8
                                                        Mean
                                                               : 4561
##
    3rd Qu.:11.291
                     3rd Qu.:17.950
                                       3rd Qu.:737.0
                                                        3rd Qu.: 5730
##
   Max.
           :14.528
                     Max.
                             :29.960
                                       Max.
                                               :827.0
                                                        Max.
                                                               :17640
      revol.bal
                         revol.util
                                       inq.last.6mths
                                                          deling.2yrs
                  0
                                              : 0.000
                                                                : 0.0000
##
                              : 0.0
                                       Min.
  Min.
                      Min.
                                                         Min.
```

```
1st Qu.:
                3187
                       1st Qu.: 22.6
                                        1st Qu.: 0.000
                                                           1st Qu.: 0.0000
##
               8596
                       Median: 46.3
                                        Median : 1.000
                                                           Median : 0.0000
    Median:
                                                                  : 0.1637
    Mean
              16914
                       Mean
                               : 46.8
                                        Mean
                                               : 1.577
                                                           Mean
              18250
                       3rd Qu.: 70.9
                                        3rd Qu.: 2.000
                                                           3rd Qu.: 0.0000
##
    3rd Qu.:
##
    Max.
           :1207359
                       Max.
                               :119.0
                                        Max.
                                                :33.000
                                                           Max.
                                                                  :13.0000
##
                       not.fully.paid
       pub.rec
                               :0.0000
##
   Min.
           :0.00000
                       Min.
                       1st Qu.:0.0000
##
    1st Qu.:0.00000
##
    Median :0.00000
                       Median : 0.0000
           :0.06212
##
   Mean
                       Mean
                               :0.1601
    3rd Qu.:0.00000
                       3rd Qu.:0.0000
           :5.00000
##
                               :1.0000
   {\tt Max.}
                       Max.
```

This dataset gives the loan details like the interest rate, fico of the customer, type of the loan, annual income along with fully paid or not flag.

```
setwd("C:\\Users\\atanu\\Documents\\BellevueUniversity_MSDS\\DSC520\\Loan Defaulter Data")
application_data <- read.csv("application_data.csv")
summary(application_data)</pre>
```

```
SK ID CURR
                                         NAME_CONTRACT_TYPE CODE_GENDER
##
                          TARGET
           :100002
                                         Length:307511
                                                             Length: 307511
##
    Min.
                      Min.
                             :0.00000
##
    1st Qu.:189146
                      1st Qu.:0.00000
                                         Class : character
                                                             Class : character
   Median :278202
                      Median :0.00000
                                         Mode :character
                                                             Mode :character
##
##
    Mean
           :278181
                      Mean
                             :0.08073
##
    3rd Qu.:367143
                      3rd Qu.:0.00000
           :456255
##
    Max.
                             :1.00000
                      Max.
##
##
   FLAG_OWN_CAR
                        FLAG_OWN_REALTY
                                             CNT_CHILDREN
                                                               AMT_INCOME_TOTAL
##
    Length: 307511
                        Length: 307511
                                                   : 0.0000
                                                                            25650
                                            Min.
                                                               Min.
                                            1st Qu.: 0.0000
                                                               1st Qu.:
##
    Class :character
                        Class : character
                                                                           112500
##
   Mode :character
                        Mode :character
                                            Median : 0.0000
                                                               Median:
                                                                           147150
##
                                                    : 0.4171
                                                               Mean
                                            Mean
                                                                           168798
##
                                            3rd Qu.: 1.0000
                                                               3rd Qu.:
                                                                           202500
##
                                            Max.
                                                   :19.0000
                                                               Max.
                                                                       :117000000
##
##
      AMT CREDIT
                        AMT ANNUITY
                                         AMT GOODS PRICE
                                                            NAME TYPE SUITE
                                                            Length: 307511
##
    Min.
           : 45000
                              : 1616
                                         Min.
                                                : 40500
                       Min.
    1st Qu.: 270000
##
                       1st Qu.: 16524
                                         1st Qu.: 238500
                                                            Class : character
    Median : 513531
                       Median : 24903
                                         Median : 450000
                                                            Mode :character
                              : 27109
    Mean
           : 599026
                                                : 538396
##
                       Mean
                                         Mean
##
    3rd Qu.: 808650
                       3rd Qu.: 34596
                                         3rd Qu.: 679500
##
    Max.
           :4050000
                       Max.
                              :258026
                                         Max.
                                                :4050000
##
                       NA's
                                         NA's
                                                :278
                              :12
##
    NAME_INCOME_TYPE
                        NAME_EDUCATION_TYPE NAME_FAMILY_STATUS NAME_HOUSING_TYPE
   Length: 307511
                        Length: 307511
                                             Length: 307511
                                                                 Length: 307511
##
    Class : character
                        Class : character
                                             Class : character
                                                                 Class : character
   Mode : character
                        Mode :character
                                             Mode :character
                                                                 Mode : character
##
##
##
##
##
```

```
REGION POPULATION RELATIVE DAYS BIRTH
                                              DAYS EMPLOYED
                                                               DAYS REGISTRATION
##
   Min.
          :0.00029
                                    :-25229
                                              Min. :-17912
                                                               Min. :-24672
                              Min.
   1st Qu.:0.01001
                              1st Qu.:-19682
                                              1st Qu.: -2760
                                                               1st Qu.: -7480
  Median :0.01885
                             Median :-15750
                                                               Median : -4504
##
                                              Median : -1213
   Mean :0.02087
                              Mean :-16037
                                              Mean : 63815
                                                               Mean : -4986
##
   3rd Qu.:0.02866
                              3rd Qu.:-12413
                                              3rd Qu.: -289
                                                               3rd Qu.: -2010
##
   Max. :0.07251
                             Max. : -7489
                                              Max. :365243
                                                               Max. :
##
##
   DAYS ID PUBLISH OWN CAR AGE
                                     FLAG MOBIL FLAG EMP PHONE
   Min. :-7197
                   Min. : 0.00
                                         :0
                                                Min. :0.0000
##
                                    Min.
   1st Qu.:-4299
                   1st Qu.: 5.00
                                   1st Qu.:1
                                                1st Qu.:1.0000
   Median :-3254
                   Median: 9.00
##
                                   Median :1
                                                Median :1.0000
   Mean :-2994
                   Mean :12.06
                                   Mean
                                         :1
                                                Mean :0.8199
                                    3rd Qu.:1
##
   3rd Qu.:-1720
                   3rd Qu.:15.00
                                                3rd Qu.:1.0000
##
   Max. :
                   Max.
                          :91.00
                                   Max.
                                         :1
                                                Max.
                                                       :1.0000
##
                   NA's
                          :202929
##
   FLAG_WORK_PHONE
                   FLAG_CONT_MOBILE
                                      FLAG_PHONE
                                                       FLAG_EMAIL
   Min. :0.0000
                    Min. :0.0000
                                    Min. :0.0000
                                                     Min. :0.00000
   1st Qu.:0.0000
                    1st Qu.:1.0000
                                    1st Qu.:0.0000
                                                     1st Qu.:0.00000
##
                                                     Median : 0.00000
##
   Median :0.0000
                    Median :1.0000
                                    Median :0.0000
##
   Mean :0.1994
                    Mean
                          :0.9981
                                    Mean :0.2811
                                                     Mean :0.05672
   3rd Qu.:0.0000
                    3rd Qu.:1.0000
                                     3rd Qu.:1.0000
                                                     3rd Qu.:0.00000
##
   Max. :1.0000
                   Max. :1.0000
                                    Max.
                                           :1.0000
                                                     Max. :1.00000
##
##
                      CNT FAM MEMBERS REGION RATING CLIENT
   OCCUPATION TYPE
   Length: 307511
                      Min. : 1.000
                                      Min. :1.000
##
   Class :character
                      1st Qu.: 2.000
                                      1st Qu.:2.000
                      Median : 2.000
                                      Median :2.000
##
   Mode :character
##
                      Mean
                           : 2.153
                                      Mean :2.052
                      3rd Qu.: 3.000
                                       3rd Qu.:2.000
##
##
                      Max.
                             :20.000
                                      Max. :3.000
##
                      NA's
                             :2
   REGION_RATING_CLIENT_W_CITY_WEEKDAY_APPR_PROCESS_START_HOUR_APPR_PROCESS_START
##
                               Length:307511
                                                         Min. : 0.00
##
   Min. :1.000
##
   1st Qu.:2.000
                               Class :character
                                                         1st Qu.:10.00
##
   Median :2.000
                               Mode :character
                                                         Median :12.00
   Mean :2.032
                                                         Mean :12.06
##
   3rd Qu.:2.000
                                                         3rd Qu.:14.00
##
   Max. :3.000
                                                         Max.
                                                               :23.00
##
   REG REGION NOT LIVE REGION REG REGION NOT WORK REGION
##
   Min.
          :0.00000
                             Min. :0.00000
   1st Qu.:0.00000
                              1st Qu.:0.00000
##
   Median :0.00000
                              Median :0.00000
   Mean
         :0.01514
                              Mean :0.05077
##
   3rd Qu.:0.00000
                              3rd Qu.:0.00000
##
   Max. :1.00000
                              Max.
                                   :1.00000
##
   LIVE_REGION_NOT_WORK_REGION REG_CITY_NOT_LIVE_CITY REG_CITY_NOT_WORK_CITY
##
   Min. :0.00000
                              Min. :0.00000
                                                     Min. :0.0000
##
  1st Qu.:0.00000
                               1st Qu.:0.00000
                                                     1st Qu.:0.0000
## Median :0.00000
                              Median :0.00000
                                                     Median : 0.0000
## Mean :0.04066
                              Mean :0.07817
                                                     Mean :0.2305
                                                     3rd Qu.:0.0000
## 3rd Qu.:0.00000
                               3rd Qu.:0.00000
```

```
Max. :1.00000
                             Max. :1.00000
                                                   Max.
                                                          :1.0000
##
   LIVE CITY NOT WORK CITY ORGANIZATION TYPE
                                           EXT SOURCE 1
                                                             EXT SOURCE 2
   Min. :0.0000
                          Length:307511
                                            Min. :0.01
                                                            Min. :0.0000
   1st Qu.:0.0000
                          Class : character
                                            1st Qu.:0.33
                                                            1st Qu.:0.3925
##
   Median :0.0000
                          Mode :character
                                            Median:0.51
                                                            Median :0.5660
   Mean :0.1796
                                            Mean :0.50
                                                            Mean :0.5144
##
   3rd Qu.:0.0000
                                            3rd Qu.:0.68
                                                            3rd Qu.:0.6636
##
   Max. :1.0000
                                            Max.
                                                  :0.96
                                                            Max.
                                                                  :0.8550
##
                                            NA's
                                                  :173378
                                                            NA's
                                                                   :660
    EXT_SOURCE_3
                  APARTMENTS_AVG
                                  BASEMENTAREA_AVG YEARS_BEGINEXPLUATATION_AVG
                  Min. :0.00
                                                  Min. :0.00
##
  Min. :0.00
                                  Min. :0.00
   1st Qu.:0.37
                  1st Qu.:0.06
                                  1st Qu.:0.04
                                                  1st Qu.:0.98
                  Median:0.09
   Median:0.54
                                  Median:0.08
                                                  Median:0.98
   Mean :0.51
                  Mean :0.12
                                  Mean :0.09
                                                  Mean :0.98
##
   3rd Qu.:0.67
                  3rd Qu.:0.15
                                  3rd Qu.:0.11
                                                  3rd Qu.:0.99
##
   Max. :0.90
                  Max. :1.00
                                  Max. :1.00
                                                  Max. :1.00
##
   NA's :60965
                  NA's
                        :156061
                                  NA's
                                         :179943
                                                  NA's
                                                        :150007
   YEARS BUILD AVG COMMONAREA AVG
                                   ELEVATORS_AVG
                                                   ENTRANCES AVG
                   Min. :0.00
   Min. :0.00
                                   Min. :0.00
                                                   Min. :0.00
##
   1st Qu.:0.69
                   1st Qu.:0.01
                                   1st Qu.:0.00
                                                   1st Qu.:0.07
   Median:0.76
                   Median:0.02
                                   Median:0.00
                                                   Median:0.14
   Mean :0.75
                   Mean :0.04
                                   Mean :0.08
                                                   Mean :0.15
##
                                                   3rd Qu.:0.21
##
   3rd Qu.:0.82
                   3rd Qu.:0.05
                                   3rd Qu.:0.12
##
  Max. :1.00
                   Max. :1.00
                                   Max. :1.00
                                                   Max. :1.00
  NA's :204488
                   NA's
                         :214865
                                   NA's :163891
                                                   NA's
                                                        :154828
  FLOORSMAX_AVG
                   FLOORSMIN_AVG
                                   LANDAREA_AVG
                                                   LIVINGAPARTMENTS_AVG
  Min. :0.00
                   Min. :0.00
                                   Min. :0.00
                                                   Min. :0.00
  1st Qu.:0.17
                   1st Qu.:0.08
                                   1st Qu.:0.02
                                                   1st Qu.:0.05
  Median:0.17
                   Median:0.21
                                   Median:0.05
                                                   Median:0.08
  Mean :0.23
                   Mean :0.23
##
                                   Mean :0.07
                                                   Mean :0.10
                                   3rd Qu.:0.09
                                                   3rd Qu.:0.12
##
   3rd Qu.:0.33
                   3rd Qu.:0.38
##
  Max. :1.00
                   Max. :1.00
                                   Max.
                                         :1.00
                                                   Max. :1.00
  NA's :153020
                   NA's
                         :208642
                                   NA's
                                          :182590
                                                   NA's
                                                          :210199
  LIVINGAREA AVG
                   NONLIVINGAPARTMENTS AVG NONLIVINGAREA AVG APARTMENTS MODE
  Min.
        :0.00
                   Min. :0.00
                                          Min.
                                                :0.00
                                                           Min.
                                                                 :0.00
                                                           1st Qu.:0.05
  1st Qu.:0.05
                   1st Qu.:0.00
                                          1st Qu.:0.00
##
  Median:0.07
                   Median:0.00
                                          Median:0.00
                                                           Median:0.08
   Mean :0.11
##
                   Mean :0.01
                                          Mean :0.03
                                                           Mean :0.11
   3rd Qu.:0.13
                   3rd Qu.:0.00
##
                                          3rd Qu.:0.03
                                                           3rd Qu.:0.14
  Max. :1.00
                   Max. :1.00
                                          Max.
                                                :1.00
                                                           Max.
                                          NA's
  NA's :154350
                   NA's
                         :213514
                                                :169682
                                                           NA's
                                                                  :156061
   BASEMENTAREA MODE YEARS BEGINEXPLUATATION MODE YEARS BUILD MODE
##
  Min. :0.00
                    Min. :0.00
                                               Min. :0.00
  1st Qu.:0.04
                    1st Qu.:0.98
                                                1st Qu.:0.70
                                               Median:0.76
## Median :0.07
                    Median:0.98
  Mean :0.09
                    Mean :0.98
                                               Mean :0.76
   3rd Qu.:0.11
                    3rd Qu.:0.99
                                                3rd Qu.:0.82
## Max. :1.00
                    Max. :1.00
                                               Max. :1.00
## NA's
         :179943
                    NA's :150007
                                               NA's
                                                      :204488
## COMMONAREA_MODE ELEVATORS_MODE
                                   ENTRANCES_MODE
                                                  FLOORSMAX_MODE
## Min. :0.00
                   Min. :0.00
                                                   Min. :0.00
                                   Min. :0.00
## 1st Qu.:0.01
                   1st Qu.:0.00
                                   1st Qu.:0.07
                                                   1st Qu.:0.17
## Median :0.02
                   Median:0.00
                                   Median:0.14
                                                   Median: 0.17
```

```
## Mean :0.04
                  Mean :0.07
                                 Mean :0.15
                                                 Mean :0.22
                  3rd Qu.:0.12
                                                 3rd Qu.:0.33
  3rd Qu.:0.05
                                 3rd Qu.:0.21
## Max. :1.00
                  Max. :1.00
                                 Max. :1.00
                                                 Max. :1.00
## NA's
         :214865
                  NA's
                       :163891 NA's
                                       :154828
                                                 NA's
                                                       :153020
                                 LIVINGAPARTMENTS MODE LIVINGAREA MODE
## FLOORSMIN MODE
                  LANDAREA MODE
##
  Min. :0.00
                  Min. :0.00
                                 Min. :0.00
                                                     Min.
                                                           :0.00
  1st Qu.:0.08
                  1st Qu.:0.02
                                 1st Qu.:0.05
                                                     1st Qu.:0.04
## Median :0.21
                  Median:0.05
                              Median:0.08
                                                     Median:0.07
   Mean :0.23
                  Mean :0.06
                                 Mean :0.11
                                                     Mean :0.11
## 3rd Qu.:0.38
                  3rd Qu.:0.08
                                 3rd Qu.:0.13
                                                     3rd Qu.:0.13
## Max. :1.00
                  Max. :1.00
                                 Max. :1.00
                                                     Max. :1.00
## NA's :208642 NA's
                         :182590 NA's :210199
                                                    NA's :154350
  NONLIVINGAPARTMENTS MODE NONLIVINGAREA MODE APARTMENTS MEDI BASEMENTAREA MEDI
                         Min. :0.00
## Min. :0.00
                                      Min. :0.00
                                                         Min. :0.00
  1st Qu.:0.00
                         1st Qu.:0.00
                                          1st Qu.:0.06
                                                         1st Qu.:0.04
## Median :0.00
                         Median :0.00
                                          Median:0.09
                                                         Median:0.08
## Mean :0.01
                         Mean :0.03
                                          Mean :0.12
                                                         Mean :0.09
## 3rd Qu.:0.00
                         3rd Qu.:0.02
                                          3rd Qu.:0.15
                                                         3rd Qu.:0.11
## Max. :1.00
                         Max. :1.00
                                          Max. :1.00
                                                         Max. :1.00
                                                 :156061 NA's
## NA's :213514
                         NA's
                              :169682
                                                                :179943
                                          NA's
  YEARS_BEGINEXPLUATATION_MEDI YEARS_BUILD_MEDI COMMONAREA_MEDI
## Min. :0.00
                           Min. :0.00 Min. :0.00
  1st Qu.:0.98
                             1st Qu.:0.69
                                            1st Qu.:0.01
##
   Median:0.98
                             Median:0.76
##
                                            Median:0.02
## Mean :0.98
                             Mean :0.76
                                         Mean :0.04
## 3rd Qu.:0.99
                             3rd Qu.:0.83
                                            3rd Qu.:0.05
## Max. :1.00
                             Max. :1.00
                                            Max. :1.00
## NA's :150007
                             NA's :204488 NA's :214865
## ELEVATORS_MEDI
                  ENTRANCES_MEDI FLOORSMAX_MEDI FLOORSMIN_MEDI
## Min. :0.00
                  Min. :0.00
                                 Min. :0.00
                                                Min. :0.00
## 1st Qu.:0.00
                  1st Qu.:0.07
                                                 1st Qu.:0.08
                                 1st Qu.:0.17
## Median :0.00
                  Median:0.14
                                 Median:0.17
                                                 Median:0.21
## Mean :0.08
                  Mean :0.15
                                 Mean :0.23
                                                Mean :0.23
## 3rd Qu.:0.12
                  3rd Qu.:0.21
                                 3rd Qu.:0.33
                                                 3rd Qu.:0.38
## Max. :1.00
                  Max. :1.00
                                 Max. :1.00
                                                 Max. :1.00
                       :154828 NA's :153020 NA's
## NA's :163891 NA's
                                                       :208642
## LANDAREA MEDI
                  LIVINGAPARTMENTS MEDI LIVINGAREA MEDI
## Min. :0.00
                  Min. :0.00
                                     Min. :0.00
## 1st Qu.:0.02
                  1st Qu.:0.05
                                      1st Qu.:0.05
##
  Median:0.05
                  Median:0.08
                                      Median:0.07
                  Mean :0.10
  Mean :0.07
                                      Mean :0.11
## 3rd Qu.:0.09
                  3rd Qu.:0.12
                                      3rd Qu.:0.13
## Max. :1.00
                  Max. :1.00
                                      Max. :1.00
## NA's :182590
                  NA's
                         :210199
                                      NA's
                                            :154350
## NONLIVINGAPARTMENTS_MEDI NONLIVINGAREA_MEDI FONDKAPREMONT_MODE
## Min. :0.00
                         Min. :0.00
                                          Length: 307511
## 1st Qu.:0.00
                         1st Qu.:0.00
                                          Class :character
## Median :0.00
                         Median:0.00
                                          Mode :character
                         Mean :0.03
## Mean :0.01
## 3rd Qu.:0.00
                         3rd Qu.:0.03
## Max. :1.00
                         Max. :1.00
## NA's :213514
                         NA's :169682
                    TOTALAREA MODE WALLSMATERIAL MODE EMERGENCYSTATE MODE
## HOUSETYPE MODE
## Length:307511
                    Min. :0.00 Length:307511 Length:307511
```

```
Class :character
                       1st Qu.:0.04
                                        Class : character
                                                            Class : character
   Mode :character
                       Median:0.07
                                        Mode :character
                                                            Mode : character
##
                       Mean
                             :0.10
##
                       3rd Qu.:0.13
##
                       Max.
                              :1.00
##
                       NA's
                              :148431
   OBS 30 CNT SOCIAL CIRCLE DEF 30 CNT SOCIAL CIRCLE OBS 60 CNT SOCIAL CIRCLE
                             Min. : 0.0000
                                                       Min. : 0.000
   Min. : 0.000
##
##
    1st Qu.: 0.000
                             1st Qu.: 0.0000
                                                       1st Qu.:
                                                                 0.000
##
   Median : 0.000
                             Median : 0.0000
                                                       Median : 0.000
   Mean
          : 1.422
                             Mean
                                   : 0.1434
                                                       Mean
                                                             : 1.405
   3rd Qu.: 2.000
                             3rd Qu.: 0.0000
                                                                 2.000
##
                                                       3rd Qu.:
##
   Max.
           :348.000
                             Max.
                                    :34.0000
                                                       Max.
                                                              :344.000
##
   NA's
           :1021
                             NA's
                                     :1021
                                                       NA's
                                                              :1021
##
   DEF_60_CNT_SOCIAL_CIRCLE DAYS_LAST_PHONE_CHANGE FLAG_DOCUMENT_2
##
   Min.
          : 0.0
                             Min.
                                    :-4292.0
                                                     Min.
                                                            :0.00e+00
##
   1st Qu.: 0.0
                             1st Qu.:-1570.0
                                                     1st Qu.:0.00e+00
   Median: 0.0
##
                             Median : -757.0
                                                     Median :0.00e+00
##
   Mean : 0.1
                             Mean
                                   : -962.9
                                                     Mean
                                                            :4.23e-05
                             3rd Qu.: -274.0
##
   3rd Qu.: 0.0
                                                     3rd Qu.:0.00e+00
##
   Max.
           :24.0
                             Max.
                                          0.0
                                                     Max.
                                                            :1.00e+00
##
   NA's
           :1021
                             NA's
                                     :1
   FLAG_DOCUMENT_3 FLAG_DOCUMENT_4
##
                                       FLAG_DOCUMENT_5
                                                          FLAG_DOCUMENT_6
           :0.00
                    Min.
                           :0.00e+00
                                       Min.
                                              :0.00000
                                                          Min.
                                                                 :0.00000
##
##
   1st Qu.:0.00
                    1st Qu.:0.00e+00
                                       1st Qu.:0.00000
                                                          1st Qu.:0.00000
   Median:1.00
                    Median :0.00e+00
                                       Median : 0.00000
                                                          Median: 0.00000
##
   Mean
          :0.71
                    Mean
                           :8.13e-05
                                       Mean
                                               :0.01511
                                                          Mean
                                                                 :0.08806
    3rd Qu.:1.00
                    3rd Qu.:0.00e+00
                                        3rd Qu.:0.00000
                                                          3rd Qu.:0.00000
         :1.00
##
                           :1.00e+00
                                               :1.00000
   Max.
                    Max.
                                       Max.
                                                          Max.
                                                                 :1.00000
##
##
   FLAG DOCUMENT 7
                        FLAG_DOCUMENT_8
                                           FLAG_DOCUMENT_9
                                                              FLAG DOCUMENT 10
##
   Min.
           :0.0000000
                        Min.
                               :0.00000
                                           Min.
                                                  :0.000000
                                                              Min.
                                                                      :0.00e+00
    1st Qu.:0.0000000
                                           1st Qu.:0.000000
##
                        1st Qu.:0.00000
                                                              1st Qu.:0.00e+00
##
   Median :0.0000000
                        Median :0.00000
                                           Median :0.000000
                                                              Median :0.00e+00
##
   Mean
         :0.0001919
                        Mean :0.08138
                                           Mean
                                                 :0.003896
                                                              Mean
                                                                    :2.28e-05
##
    3rd Qu.:0.0000000
                        3rd Qu.:0.00000
                                           3rd Qu.:0.000000
                                                              3rd Qu.:0.00e+00
##
   Max. :1.0000000
                        Max.
                               :1.00000
                                           Max.
                                                  :1.000000
                                                              Max.
                                                                    :1.00e+00
##
##
   FLAG DOCUMENT 11
                       FLAG DOCUMENT 12
                                         FLAG DOCUMENT 13
                                                             FLAG DOCUMENT 14
                                                                    :0.000000
##
   Min.
           :0.000000
                       Min.
                              :0.0e+00
                                          Min.
                                                 :0.000000
                                                             Min.
   1st Qu.:0.000000
                       1st Qu.:0.0e+00
                                          1st Qu.:0.000000
                                                             1st Qu.:0.000000
                                                             Median :0.000000
##
   Median :0.000000
                       Median : 0.0e+00
                                         Median :0.000000
                              :6.5e-06
   Mean
           :0.003912
                       Mean
                                          Mean
                                                 :0.003525
                                                             Mean
                                                                     :0.002936
##
   3rd Qu.:0.000000
                       3rd Qu.:0.0e+00
                                          3rd Qu.:0.000000
                                                             3rd Qu.:0.000000
           :1.000000
                              :1.0e+00
                       Max.
                                          Max.
                                                 :1.000000
                                                             Max.
                                                                    :1.000000
##
                      FLAG DOCUMENT 16
                                                              FLAG DOCUMENT 18
##
   FLAG DOCUMENT 15
                                          FLAG DOCUMENT 17
##
   Min.
          :0.00000
                      Min.
                            :0.000000
                                          Min.
                                                 :0.0000000
                                                              Min.
                                                                     :0.00000
   1st Qu.:0.00000
                      1st Qu.:0.000000
                                          1st Qu.:0.0000000
                                                              1st Qu.:0.00000
##
   Median :0.00000
                      Median :0.000000
                                          Median :0.0000000
                                                              Median :0.00000
##
   Mean
           :0.00121
                      Mean
                             :0.009928
                                          Mean
                                                 :0.0002667
                                                              Mean
                                                                     :0.00813
##
   3rd Qu.:0.00000
                      3rd Qu.:0.000000
                                          3rd Qu.:0.0000000
                                                              3rd Qu.:0.00000
##
   Max.
           :1.00000
                      Max.
                             :1.000000
                                         Max.
                                                 :1.0000000
                                                              Max.
                                                                     :1.00000
##
```

```
##
    FLAG_DOCUMENT_19
                         FLAG_DOCUMENT_20
                                              FLAG_DOCUMENT_21
##
                         Min.
    Min.
           :0.0000000
                                :0.0000000
                                              Min.
                                                     :0.0000000
    1st Qu.:0.0000000
##
                         1st Qu.:0.0000000
                                              1st Qu.:0.0000000
##
   Median :0.0000000
                         Median :0.0000000
                                              Median :0.0000000
##
    Mean
           :0.0005951
                         Mean
                                :0.0005073
                                              Mean
                                                     :0.0003349
                         3rd Qu.:0.0000000
                                              3rd Qu.:0.0000000
##
    3rd Qu.:0.0000000
           :1.0000000
                                :1.0000000
##
    Max.
                         Max.
                                              Max.
                                                     :1.0000000
##
##
    AMT_REQ_CREDIT_BUREAU_HOUR AMT_REQ_CREDIT_BUREAU_DAY
##
    Min.
           :0.00
                                Min.
                                        :0.00
##
    1st Qu.:0.00
                                1st Qu.:0.00
    Median:0.00
                                Median:0.00
##
##
    Mean
           :0.01
                                        :0.01
                                Mean
    3rd Qu.:0.00
                                3rd Qu.:0.00
##
##
    Max.
                                        :9.00
           :4.00
                                Max.
##
    NA's
           :41519
                                NA's
                                        :41519
##
    AMT_REQ_CREDIT_BUREAU_WEEK AMT_REQ_CREDIT_BUREAU_MON AMT_REQ_CREDIT_BUREAU_QRT
           :0.00
                                Min.
                                       : 0.00
                                                            Min.
                                                                      0.00
                                                            1st Qu.:
##
    1st Qu.:0.00
                                1st Qu.: 0.00
                                                                      0.00
##
    Median:0.00
                                Median: 0.00
                                                            Median :
                                                                      0.00
##
    Mean
           :0.03
                                Mean
                                       : 0.27
                                                            Mean
                                                                      0.27
##
    3rd Qu.:0.00
                                3rd Qu.: 0.00
                                                            3rd Qu.: 0.00
##
   Max.
           :8.00
                                Max.
                                        :27.00
                                                           Max.
                                                                   :261.00
    NA's
           :41519
                                NA's
                                        :41519
                                                           NA's
                                                                   :41519
##
##
    AMT_REQ_CREDIT_BUREAU_YEAR
##
   Min.
           : 0.0
##
    1st Qu.: 0.0
   Median: 1.0
##
           : 1.9
##
   Mean
##
    3rd Qu.: 3.0
##
    Max.
           :25.0
##
    NA's
           :41519
```

This data set is about loan application where Target field having 1 means the applicant have difficulty while paying for the loan and also have more than x day late payment.